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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,584	06/17/2002	Ryuhei Tsuji	2002-0289A	3824

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WASHINGTON, DC 20006-1021

EXAMINER
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KOVALICK, VINCENT E

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 12/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

**Application No.**

10/069,584

**Applicant(s)**

TSUJI, RYUHEI

**Examiner**

Vincent E Kovalick

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2004.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 15-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 4 and 17 is/are allowed.  
6) ☒ Claim(s) 1-3,5,15 and 16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 17 June 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/27,7/8 & 11/28/02.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

1. This Office Action is in response to Applicant's response, dated July 27, 2004, to USPTO Restriction Requirement dated July 14, 2004 in which Applicant elected Group 1 which is drawn to an image display unit and is embodied by claims 1-5 and 15-17.

#### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seeley et al. (USP 6,091,771) taken with Hornung et al. (USP5,898,827) in view of Kamishima (USP 5,646,959). Relative to claim 1, Seeley et al. **teaches** a video security system for monitoring a number of premises simultaneously (col. 1, lines 27-67 and col. 2, lines 1-62); Seeley et al. further **teaches** lighting apparatus (display) being driven by a controller which in turn drives a terminal adapter that directs display data to an appropriate display device; still further Seeley et al. **teaches** the display units disposing at least one light emitting elements, connected with the terminal adaptor electrically via lower communicating line, and driving each of the disposed light emitting elements based on the display data provided by the control unit (col. 4, lines 64-67 and col. 5, lines 1-19).

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Seeley et al. **does not teach** said control unit providing display data packets; at least one terminal adaptors assigned terminal adaptor ID and connected with the control unit electrically via upper communication line; the display units assigned display unit ID and driving the display elements based on the display data packets; or the display data packet includes at least the terminal adaptor ID and the display unit ID as an identifying information; the terminal adaptor receives the display data packet having the identifying information including the terminal adaptor ID, which matches the terminal adaptor ID assigned to the terminal adaptor, and transfers the display data packet to the display units via the lower communication line; and the display unit receives the display data packet having the identifying information including display unit ID, which matches the display unit ID assigned to the display unit and drives the light emitting elements based on the display data packets.

Seeley et al. teaches lighting apparatus (display) being driven by a controller which in turn drives a terminal adapter that directs display data to an appropriate display device.

Hornung et al. **teaches** routing methods for a multimode SCI compute system (col. 1, lines 39-67 and col. 2, lines 1-27); Hornung et al. further **teaches** said control unit providing display data packets; at least one terminal adaptors assigned terminal adaptor ID and connected with the control unit electrically via upper communication line; the display units assigned display unit ID and driving the display elements based on the display data packets; or the display data packet includes at least the terminal adaptor ID and the display unit ID as an identifying information; and the display unit receives the display data packet having the identifying information including display unit ID, which matches the display unit ID assigned to the displayed unit, and derives the light emitting elements based on the display data packets (col. 6, lines 53-62).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Seeley et al. the feature as taught by Hornung et al. in order to facilitate routing display data to a plurality of display units

Seeley et al. taken with Hornung et al. **does not teach** at least one terminal adaptors assigned terminal adaptor ID and connected with the control unit electrically via upper communication line; or the terminal adaptor receives the display data packet having the identifying information including the terminal adaptor ID, which matches the terminal adaptor ID assigned to the terminal adaptor, and transfers the display data packet to the display units via the lower communication line.

Seeley et al. taken with Hornung et al. teaches lighting apparatus (display) being driven by a controller which in turn drives a terminal adapter that directs display data to an appropriate display device identified by data contained in data packets.

Kamishima **teaches** a terminal adapter capable of reducing a memory capacity (col. 2, lines 13-67 and col. 3, lines 1-46); Kamishima further **teaches teach** at least one terminal adaptors assigned terminal adaptor ID and connected with the control unit electrically via upper communication line; or the terminal adaptor receives the display data packet having the identifying information including the terminal adaptor ID, which matches the terminal adaptor ID assigned to the terminal adaptor, and transfers the display data packet to the display units via the lower communication line (col. 6, lines 16-31).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Seeley et al. taken with Hornung et al. the feature as taught by

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Kamishima order to provide a terminal adapter which is pertinent to packet communication in an integrated service digital network (Kamishima, col. 2, lines 21-23).

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seeley et al. taken with Hornung et al. in view of Kamishima as applied to claim 1 in item 3 hereinabove, and further in view of Fujimori et al. (USP 6,477,181).

Regarding claim 2, Seeley et al. taken with Hornung et al. in view of Kamishima **does not teach** said light apparatus wherein the control unit transfers frame cycle start packet stating start of frame cycle, the frame cycle start packet being assigned the identifying information stating to be received by all of the display units; and the display unit performs frame synchronizing based on the frame cycle start packet.

Seeley et al. taken with Hornung et al. in view of Kamishima teaches a lighting apparatus (display) being driven by a controller which in turn drives a terminal adapter that directs display data to an appropriate display device identified by data contained in data packets.

Fujimori et al. **teaches** a data communication method and system which receives data from a segment on a communication network and then transfers the received data to another segment on the communication network (col. 1, lines 27-67 and col. 2, lines 53); Fujimori et al. further **teaches** said light apparatus wherein the control unit transfers frame cycle start packet stating start of frame cycle, the frame cycle start packet being assigned the identifying information stating to be received by all of the display units; and the display unit performs frame synchronizing based on the frame cycle start packet (col. 32, lines 63-67 and col. 33, lines 1-9). It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Seeley et al. taken with Hornung et al. in view of Kamishima

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the feature as taught by Fujimori et al. order to provide a technique which is suitable applicable to a data communication system designed to transmit data packets containing associated ID information (Fujimori et al. col. 6, lines 28-34).

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seeley et al. taken with Hornung et al. in view of Kamishima as applied to claim 1 in item 3 hereinabove, and further in view Miyata et al. (USP 5,165,036).

Regarding claim 2, Seeley et al. taken with Hornung et al. in view of Kamishima **does not teach** the said lighting apparatus wherein the display unit further comprises a memory storing at least display data; memory space in the memory allocates data area in accordance with circuitry in the display unit precedent; and the control unit transfers communication packet and controls the display units by accessing to predetermined memory area of the display unit allocated precedently.

Seeley et al. taken with Hornung et al. in view of Kamishima teaches a lighting apparatus (display) being driven by a controller which in turn drives a terminal adapter that directs display data to an appropriate display device identified by data contained in data packets.

Miyata et al. **teaches** a parallel processor and method of developing the same (col. 2, lines 24-68 and col. 4, lines 1-41); Miyata et al. further **teaches** the said lighting apparatus wherein the display unit further comprises a memory storing at least display data; memory space in the memory allocates data area in accordance with circuitry in the display unit precedent; and the control unit transfers communication packet and controls the display units by accessing to predetermined memory area of the display unit allocated precedently (Abstract).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Seeley et al. taken with Hornung et al. in view of Kamishima the feature as taught by Miyata et al. in order to provide a method and system by which data flow program can be effectively performed. (col. 3, lines 40-43, Miyata et al.).

6. Regarding claims 15 and 16, Seeley et al. taken with Hornung et al. in view of Kamishima and further in view of Fujimori et al or Miyata et al. **does not teach** said lighting apparatus wherein communication at the upper communication line employs higher speed communication than communication at the lower communication line; said steps being in common practice in the manipulation of data communication.

Because said steps are in common practice and well know in the art, it would have been obvious to a person of ordinary skill in the art at the time of the invention to include said steps in the design as taught by Seeley et al. taken with Hornung et al. in view of Kamishima and further in view of Fujimori et al or Miyata et al. in order to provide the means to transfer data within the system in a manner and at a speed compatible with the overall processing of the data being communicated, e.g. data movement in the process such that the data flow is synchronized with the different communication speeds.

***Allowable Subject Matter***

7. Claim 4 and 17 are allowed.

8. The following is an examiner's statement of reasons for allowance:

Relative to claim 4, the major difference between the teachings of the prior art of record (Seeley et al. (USP 6,091,771), Hornung et al. (USP5,898,827) Kamishima (USP 5,646,959))



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and that of the instant invention is that said prior art of record **does not teach** said lighting apparatus wherein the terminal adaptors and /or the display units are arranged in  $n$  rows ( $n$  is two or more integer), each of the communicating sections being connected each other serially a each of the rows; the communicating section of the terminal adaptors and/or the display units are connected which is arranged at end position of the lowest stream viewed from the control unit in  $m$ -th row ( $m$  is integer, which is  $1 \leq m \leq n-1$ ) with which is arranged in  $(m+1)$ -th row at end position on same side as the communication section of the terminal adaptors and/or the display units is located in  $m$ -th row.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,687,221	Kurose et al.
U. S. Patent No.	5,739,869	Markle et al.
U. S. Patent No.	4,139,149	Crepeau et al.
U. S. Patent No.	Re. 312,977	Ott

*Responses*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E Kovalick whose telephone number is 703 306-3020. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Vincent E. Kovalick  
November 30, 2004



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